

WHAT IS CLAIMED IS:

1           1.       A content exchange apparatus for cacheing content objects, the  
2 content exchange apparatus comprising:  
3               a content store comprising a plurality of content objects;  
4               a content tracker that determines the content objects stored in the content  
5 store;  
6               an origin server database comprising a list of origin servers associated with  
7 the content exchange; and  
8               a catalog of content objects stored in the content store.

1           2.       The content exchange apparatus for cacheing content objects as  
2 recited in claim 1, wherein the list of origin servers is modified to exclude a particular  
3 origin server when a determination is made that the particular origin server is no longer  
4 available.

1           3.       The content exchange apparatus for cacheing content objects as  
2 recited in claim 1, wherein the list of origin servers contains some origin servers that have  
3 no content objects stored in the content exchange.

1           4.       The content exchange apparatus for cacheing content objects as  
2 recited in claim 1, wherein content objects associated with a particular origin server are  
3 removed from the content store when a determination is made that the particular origin  
4 server is no longer available.

1           5.       The content exchange apparatus for cacheing content objects as  
2 recited in claim 1, wherein:  
3               the content store is divided into a first section and a second section;  
4               the first section comprises a cache where less frequently requested content  
5 objects are purged in favor of more frequently requested content objects; and  
6               the second section comprises a file system where content objects remain  
7 stored in the content store for a period of time regardless of request frequency.

1           6.       The content exchange apparatus for cacheing content objects as  
2 recited in claim 1, further comprising a content controller, wherein the content controller  
3 finds a requested content object not presently retained in the content store.

1                   7.       The content exchange apparatus for cacheing content objects as  
2 recited in claim 1, further comprising a content controller, wherein the content controller  
3 finds a requested content object not presently retained in the content store on one of:  
4 another content exchange and the origin server.

1                   8.       The content exchange apparatus for cacheing content objects as  
2 recited in claim 1, further comprising an information repository comprising status  
3 information related to the content exchange.

1                   9.       A content storing system for cacheing content objects, the content  
2 storing system comprising:  
3                   a first content exchange;  
4                   a second content exchange; and  
5                   a content bus coupled to the first and second content exchanges, wherein:  
6                   the first content exchange comprises an origin server database  
7                   comprising a list of origin servers associated with the first content exchange, and  
8                   the list of origin servers contains a plurality of origin servers that  
9                   have no content objects stored in the first content exchange.

1                   10.      The content storing system for cacheing content objects as recited  
2 in claim 9, wherein the list of origin servers is modified to exclude a particular origin  
3 server when a determination is made that the particular origin server is no longer  
4 available.

1                   11.      The content storing system for cacheing content objects as recited  
2 in claim 9, wherein content objects associated with a particular origin server are removed  
3 from the content store when a determination is made that the particular origin server is no  
4 longer available.

1                   12.      The content storing system for cacheing content objects as recited  
2 in claim 9, wherein:  
3                   the second content exchange is divided into a first section and a second  
4 section;  
5                   the first section comprises a cache where less frequently requested content  
6 objects are purged in favor of more frequently requested content objects; and

7 the second section comprises a file system where content objects remain  
8 stored in the second content exchange for a period of time regardless of request  
9 frequency.

1 13. The content storing system for cacheing content objects as recited  
2 in claim 9, wherein the content bus transports a requested content object not presently  
3 retained in the first content exchange from the second content exchange.

1 14. The content storing system for cacheing content objects as recited  
2 in claim 9, further comprising a content controller, wherein the content bus transports a  
3 requested content object not presently retained in the first content exchange from one of  
4 the second content exchange and an origin server.

1 15. A method for caching content objects in a content exchange, the  
2 method comprising steps of:  
3 storing content objects requested from the content exchange;  
4 receiving information about an origin server from that origin server;  
5 storing the information in a database;  
6 determining a network address for the origin server using the database; and  
7 contacting one of the origin server and another content exchange when a  
8 content object request results in a cache miss.

1 16. The method for caching content objects in the content exchange as  
2 recited in claim 15, wherein the database comprises an origin server identifier and an  
3 origin server address for each associated origin server.

1 17. The method for caching content objects in the content exchange as  
2 recited in claim 15, wherein the storing step comprises a step of storing an origin server  
3 identifier and an origin server address for each associated origin server.

1 18. The method for caching content objects in the content exchange as  
2 recited in claim 15, wherein the determining step comprises a step of querying the  
3 database for an origin server address associated with a provided origin server identifier.

1 19. The method for caching content objects in the content exchange as  
2 recited in claim 15, wherein the contacting step comprises steps of:

3 determining if any other content exchange has at least a portion of the  
4 content object;  
5 requesting the portion if the portion is found on any other content  
6 exchange; and  
7 requesting the portion from the origin server if the portion is not found on  
8 any other content exchange.